AMENDMENTS TO THE CLAIMS

Please amend claims .

The following listing of claims replaces all versions, and listings, of claims in this application.

Listing of Claims:

1-42. (Canceled)

43. (Currently Amended) A system for reconstructing an image, the system comprising: a controller to:

receive selected image data from an in-vivo device, wherein said selected image data has been selected using a dilution pattern, wherein said dilution pattern is repeated in every four rows of the image, such that every second green pixel is selected from a first row, every second blue pixel is selected from a second row, and every second red pixel is selected from a third row, and wherein said dilution pattern further includes averaging a selected pixel with a neighboring pixel of the same color;

pre-process the selected image data by applying error correction code, gradient evaluation, or detecting edges;

interpolate the selected image data to produce reconstructed image data, so that the reconstructed image data includes more data than selected image data; and

post-process the reconstructed image data by applying a median filter.

44. (Previously Presented) The system of claim 43, wherein the controller interpolates by linear interpolation, quadratic interpolation, bicubic interpolation, polynomial interpolation, or weighted average interpolation.

45. (Previously Presented) The system of claim 43, wherein the controller is to produce additional image data resulting in reconstructed image data.

46. (Canceled)

47. (Previously Presented) The system of claim 43, wherein the controller is further to post-process the reconstructed image data by color suppression.

48. (Canceled)

49. (Previously Presented) The system of claim 43, wherein the controller is to generate reconstructed image data based on said selected image data.

50. (Previously Presented) The system of claim 43 wherein the controller is to receive the selected image data from a swallowable capsule.

51. (Previously Presented) The system of claim 43 wherein said selected image data is produced by an in vivo imager which captures a plurality of input data corresponding to an image.

52. (Previously Presented) The system of claim 51 wherein said selected image data is transmitted from an in vivo device via a transmitter.

53-55. (Canceled)

56. (Previously Presented) The system of claim 43 wherein the dilution pattern used to select the selected image data is modified based on operating conditions of the in vivo device.

57. (Previously Presented) The system of claim 56 wherein the operating conditions are selected from a group consisting of: position of the in vivo device, pH, temperature, ambient lighting or color conditions.

58. (Previously Presented) The system of claim 43 wherein said dilution pattern further comprises selecting a same amount of red pixels and blue pixels and twice that amount of green pixels.

59. (Previously Presented) The system of claim 43 wherein said dilution pattern further comprises selecting every second green pixel from said second row, and selecting no pixels from a fourth row.

60. (Previously Presented) The system of claim 43 wherein said dilution pattern further comprises selecting every second red pixel from a fourth row, such that a same amount of green pixels and blue pixels are selected and twice that amount of red pixels are selected.

61. (Previously Presented) A system for dilution of in vivo image data for subsequent reconstruction thereof, the system comprising: a data compression module to:

receive image data acquired by an in-vivo device; and

compress said image data using a dilution pattern, wherein said dilution pattern is repeated in every four rows of the image data, such that every second green pixel is selected from a first row, every second blue pixel is selected from a second row, and every second red pixel is selected from a third row.

62. (Previously Presented) The system of claim 61 wherein said data compression module is implemented as part of a microprocessor.

63. (Previously Presented) The system of claim 61 wherein said data compression module is implemented as part of a transmitter in said in vivo device.

64. (Previously Presented) The system of claim 61 wherein said dilution pattern further comprises selecting a same amount of red pixels and blue pixels and twice that amount of green pixels.

65. (Previously Presented) The system of claim 61 wherein said dilution pattern further comprises selecting every second green pixel from said second row, and selecting no pixels from a fourth row.

66. (Previously Presented) The system of claim 61 wherein said dilution pattern further comprises selecting every second red pixel from a fourth row, such that a same amount of green pixels and blue pixels are selected and twice that amount of red pixels are selected.

67. (New) The system of claim 43 wherein said in-vivo device comprises an imager, and said averaging is performed by said imager.

68. (New) The system of claim 43 wherein said in-vivo device comprises a control bit, and said averaging is activated or deactivated by said control bit.